AVAYA

Application Notes for Symmetrics nVISION Data Mart with Avaya (formerly Nortel) Contact Center Manager Server 7.0 – Issue 1.0

Abstract

These Application Notes describe the configuration steps required for Symmetrics nVISION Data Mart 1.8 to interoperate with Avaya (formerly Nortel) Contact Center Manger Server 7.0. nVISION Data Mart 1.8 is a centralized data repository that is used to store and consolidate data from Avaya Contact Center Manager Server.

Information in these Application Notes has been obtained through DevConnect compliance testing and additional technical discussions with Symmetrics. Testing was conducted via DevConnect at the Avaya Solution and Interoperability Test Lab.

1. Introduction

These Application Notes describe the configuration steps required for Symmetrics nVISION Data mart to interoperate with Avaya (formerly Nortel) Contact Center Manager Server (CCMS). Symmetric's nVISION Data Mart provides customers a data abstraction layer for advanced reporting/analytic capabilities and true ownership of their data. Owning the data enables the enterprise to accurately measure and answer the necessary questions to improve their business. Additionally, the nVISION Data Mart solution offloads the data from the CCMS, allowing call routing and pegging to be the focus of the Automatic Call Distribution and reducing the chance for data locks and resulting performance bogs due to direct querying of the source system.

1.1. Interoperability Compliance Testing

The interoperability compliance testing focused on verifying Symmetrics nVISION Data Mart for the following on both Historical and Contact data:

Connectivity
- Validate CCMS connectivity configuration for nVISION historic data integration

Functionality
- Validate nVISION data target connectivity configuration for nVISION historic data integration
- Validate nVISION initial set up process for historic data integration processes
- Validate nVISION batch process for historic data integration
- Validate retention period configuration for nVISION historic data mart
- Validate reload period configuration for nVISION historic data mart
- Validate batch max range configuration for nVISION historic data integration process
- Validate site on/off configuration for nVISION historic data integration process
- Validate logging process for nVISION historic data integration process
- Validate scheduling for historic data updates

Data
- Validate nVISION historic data

1.2. Support

Technical support on Symmetrics nVISION Data Mart can be obtaining by contacting Symmetrics directly at:

Address:
Symmetrics
1050 West Pender St. • Suite 2200
Vancouver, BC V6E 3S7

Email: support@symmetrics.com
Website: www.symmetrics.com
Phone: 604.688.0882

2. Reference Configuration

Symmetrics nVISION Data Mart is designed to run sql commands through JDBC interface to the Contact Center Manager Server Cache Database and retrieve data. This data is then stored on the Symmetrics nVISION Data Mart server.
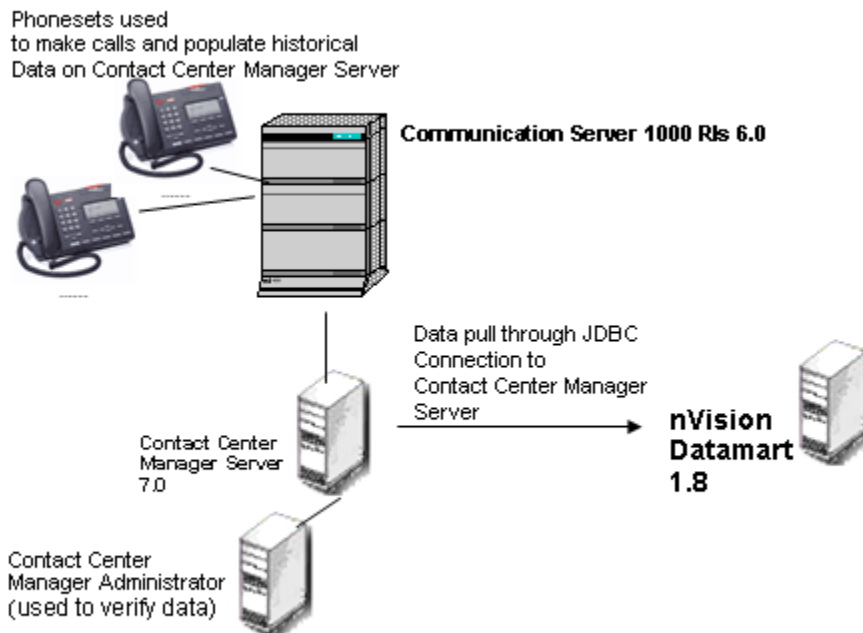

Figure 1: Reference Configuration

These application notes assume that Communication Server Release 6.0, Contact Center Manager Server 7.0, Contact Center Server Utility 7.0 and Contact Center Manager Administrator 7.0 are already installed and basic configuration steps have been performed. Only steps relevant to Access Class and User creation on Contact Center Server Utility 7.0 will be described in this document. For further details on configuration steps not covered in this document, consult the appropriate document in **Section 10**.

- Avaya Contact Center Manager Server should be running Release 7.0 or higher. The sample data should contain multiple records for each historical data interval. All historical statistics should be pegging on the test server, to include historical and contact data.
    - o **Interval data** – Views prefixed with "i" should cover two days worth of data
    - o **Daily data** – Views prefixed with "d" should cover one week's worth of data

- Weekly data – Views prefixed with a "w" should cover one month's worth of data
- Monthly data – Views prefixed with an "m" should cover two month's worth of data -
- Contact (call by call) data – At least two days should be populated. Calls should be subjected to all conditions, i.e.: placed on hold, multiple holds per call, transferred internally and externally, DN calls, abandon calls before entering queue, etc.

- **Symmetrics nVISION Data Mart** requires a dedicated Windows Server with a complete installation of SQL Server 2005 and network connectivity to the CCMS 7.0 servers. The CCMA 7.0 client should be able to access the CCMS servers. Crystal Reports Professional is also required and needs to be the same version as required by CCMS 7.0 (or equivalent scenario to report against source CCMS database to compare to DM-based data). iSQL, TSQL or similar console or utility scripts are required for executing SQL statements.

3. Equipment and Software Validated

The following equipment and software were used for the sample configuration provided:

Hardware Component	Software version
Windows 2003Server Standard Edition	Contact Center Manager Server 7.0 (with Server Utility) – SU_02/SUS_0201
Windows 2003 Server	Contact Center Manager Administrator 7.0 – SU_02/SUS_0201
Windows 2003 Server	nVision DataMart 1.8 (co-resident with Crystal Reports Professional and iSQL, TSQL or similar console to run sql queries)
Communication Server	Release 6.0
i2050	IP Softphone Release 2.0

4. Configure Avaya Communication Server

No special configuration is required on Communication Server Release 6.0.
Any phones currently supported by Contact Center Manager Server 7.0 can be used to collect reports. For the purpose of this compliance testing i2050 IP Softphones were used.

5. Configure Avaya Contact Center Manager Server 7.0

The compliance test environment consisted of a Contact Center Manger Server 7.0 server with historical data base populated with call data. Call data was generated by running normal skillset based routing calls through the Contact Center Manager Server 7.0.

This section describes a procedure for setting up:

- A new Access Class on Contact Center Server Utility
- A new user in Contact Center Manager

Configuration in the following sections is only for the fields where a value needs to be entered or modified. Default values are used for all other fields.
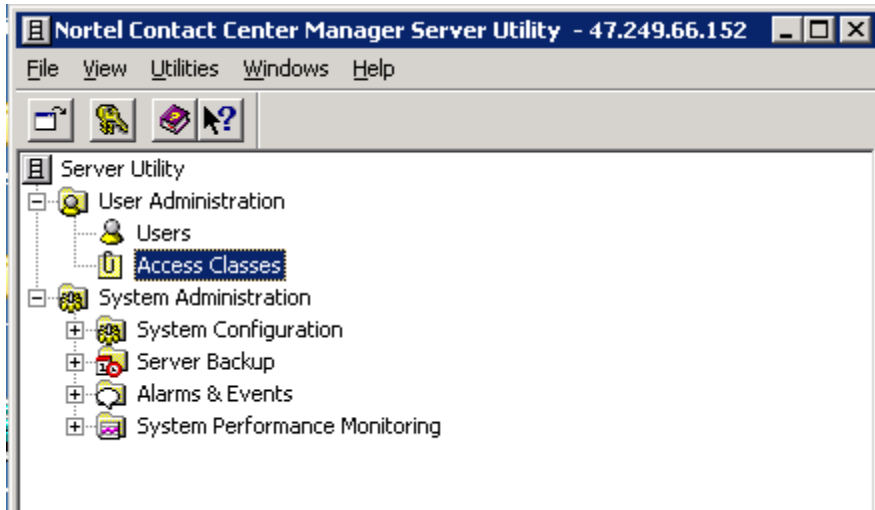
5.1. Access Class

A new Access Class (for example named Developer RTDRSM) was created on Contact Center Server Utility.
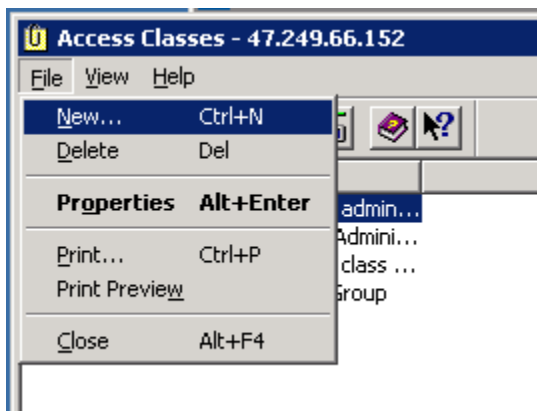
To create the access class, on the Contact Center Utility Server navigate to Programs → Nortel →Contact Center → Server Utility → Server Utility.
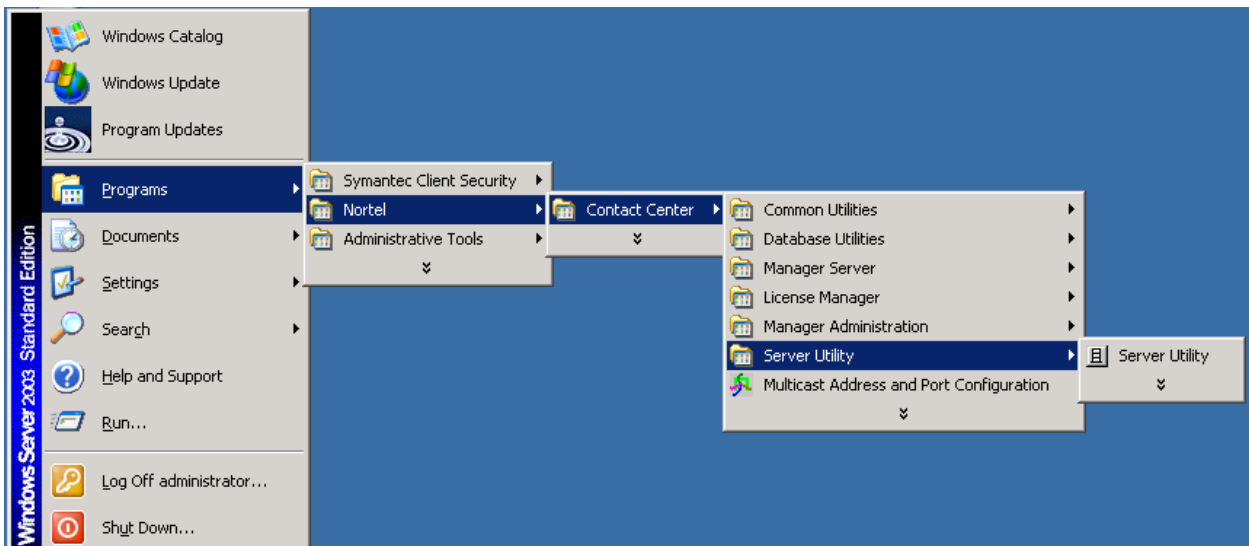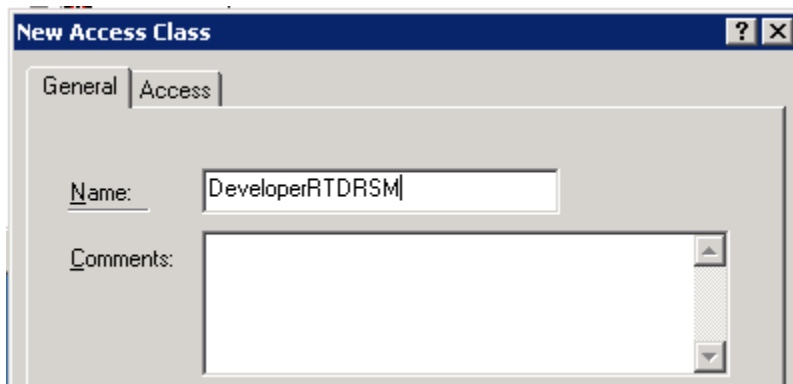

In Contact Center Manager Server Utility, go to Access Classes by double clicking on "Access Classes":

To create new Access Class, select New from the File menu:

In the General tab, enter a descriptive name. For the sample configuration DeveloperRTDRSM was entered.
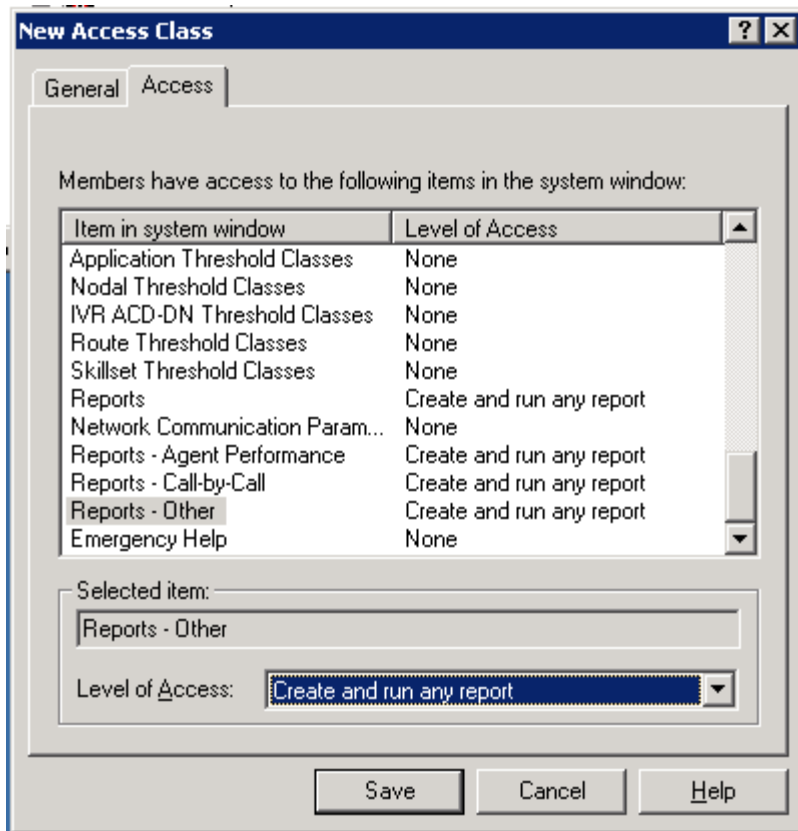
In the Access tab, select the following permissions:

Item in system window	Level of Access
Real-Time Displays	View all agents – create displays
Reports – Others	Create and run any report

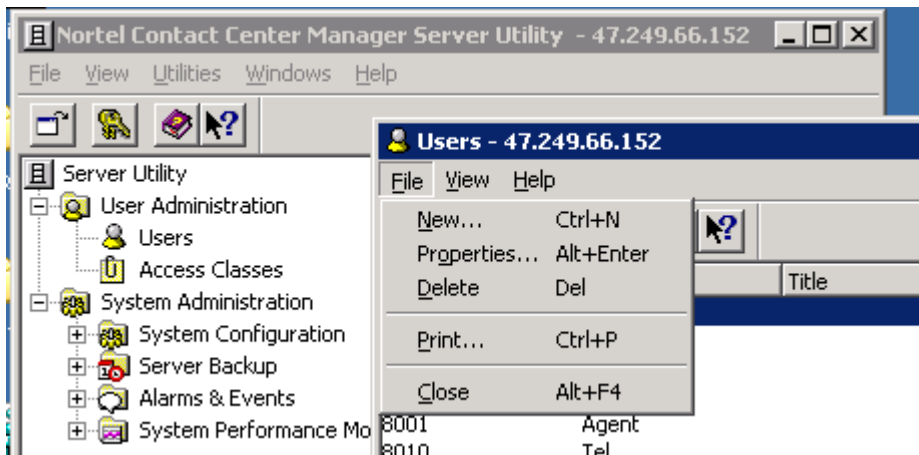The screens below show the steps to grant the above permissions.
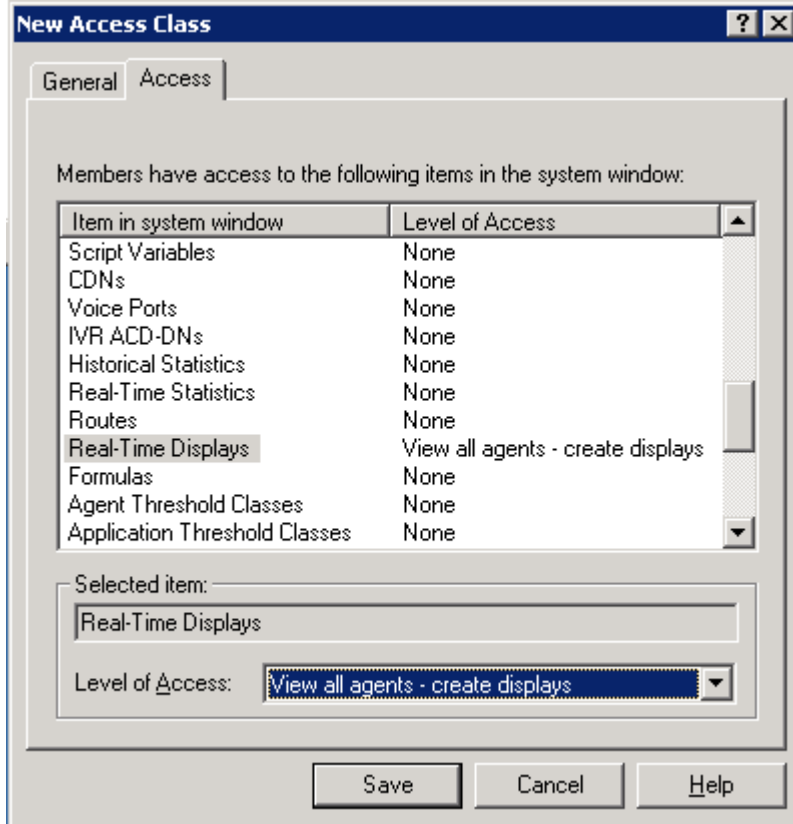
5.2. New User

To create the new users, on the Contact Center Utility Server navigate to Programs → Nortel →Contact Center → Server Utility → Server Utility.

To create a new user on Contact Center Manager server, choose "Users" from Server Utility, then File →New on Users menu.

In the general tab, enter user information:

In Desktop tab, set userID and select the Access Class created in **Section 5.1.**

Click "Save" to save the new user.

The above user login was used by nVISION Data Mart to obtain Realtime data from CCMS.

Historical data was generated by running voice traffic on the system over the course of a couple of weeks. User 'webadmin' (default user) on Contact Center Manager Administrator

6. Configure Symmetrics nVision DataMart 1.8

Symmetrics nVISION Data Mart uses xml files for configuration and data extraction. As such these files need to be edited to suit the specific environment. The following sections provide details on the configuration xml files.

6.1. Historical ETL Configuration

Open file "**hist_config.xml**" from folder **x:\nvision\config** in notepad or WordPad to edit contents. The site configuration node needs to be created in the configuration XML for each site and interval that is going to be integrated into Symmetrics nVISION Data Mart.

The specific entries related to connectivity to the Contact Center Manager Server are:

site_verision: Version of CCMS software
conn_server: server name or IP address
conn_type: Server database vender for Contact Center Manager Server (for CCMS 7.0, entry will be CACHE)
conn_database: CCMS database name (CCMS_STAT)
conn_port: 1972
conn_username: CCMS database user name as configured in **Section 5.2**
conn_password: CCMS database user password
conn_jdbcurl: jdbc:Cache:\\IPAddress:1972/CCMS_STAT
conn_driver: com.intersys.jdbc.CacheDriver

6.2. Call By Call ETL Configuration

Open file "**cbc_config.xml**" from folder **x:\nvision\config** in notepad or WordPad to edit contents. The site configuration node needs to be created in the configuration XML for each site and interval that is going to be integrated into Symmetrics nVISION Data Mart.

The specific entries related to connectivity to the Contact Center Manager Server are:

site_name: CCMS site name
site_db: CCMS site name
site_version: Version of CCMS software

conn_server: server name or IP address
conn_type: Server database vender for Contact Center Manager Server (for CCMS 7.0, entry will be CACHE)
conn_database: CCMS database name (CCMS_STAT)
conn_port: 1972
conn_username: CCMS database user name as configured in **Section 5.2**
conn_password: CCMS database user password
conn_jdbcurl: jdbc:Cache:\\IPAddress:1972/CCMS_STAT
conn_driver: com.intersys.jdbc.CacheDriver

6.3. Contact ETL Configuration

Open file "**contact_config.xml**" from folder **x:\nvision\config** in notepad or WordPad to edit contents. The site configuration node needs to be created in the configuration XML for each site and interval that is going to be integrated into Symmetrics nVISION Data Mart.

The specific entries related to connectivity to the Contact Center Manager Server are:

site_name: CCMS site name
site_version: Version of CCMS software
conn_username: CCMS database user name as configured in **Section 5.2**
conn_password: CCMS database user password
conn_jdbcurl: jdbc:Cache:\\IPAddress:1972/CCMS_STAT
conn_driver: com.intersys.jdbc.CacheDriver

6.4. nVISION Data Mart Data Objects

The following sections detail the initialization steps need to create the data objects that are needed to store the retrieved data from the Contact Center Manager Server.

6.4.1. Historical data objects
Open file "**hist_init.bat**" from folder **x:\nvision\batch\hist** in notepad or WordPad to edit contents. Update the first line "SET NVISION_HOME" to reference the home folder of the nVISION Data Mart install. From command window, navigate to "x:\nvision\batch\hist". Run "Start hist_init.bat"

6.4.2. Call By Call objects
Open file "**cbc_init.bat**" from folder **x:\nvision\batch\cbc** in notepad or WordPad to edit contents. Update the first line "SET NVISION_HOME" to reference the home folder of the nVISION Data Mart install. From command window, navigate to "x:\nvision\batch\cbc". Run "Start cbc_init.bat"

6.4.3. Contact objects
Open file "**contact_init.bat**" from folder **x:\nvision\batch\contact** in notepad or WordPad to edit contents. Update the first line "SET NVISION_HOME" to reference the home folder of the

nVISION Data Mart install. From command window, navigate to "x:\nvision\batch\contact".
Run "Start contact_init.bat"

6.5. Data Retrieval by nVISION Data Mart

The following sections provide details on how to retrieve data from Contact Center Manager
Server server using nVISION Data Mart.

6.5.1. Historical data

Open file "**hist_batch.bat**" from folder **x:\nvision\hist** in notepad or WordPad to edit contents.
Update the first line "SET NVISION_HOME" to reference the home folder of the nVISION
Data Mart install. From command window, navigate to "x:\nvision\batch\hist". Run "Start
hist_batch.bat x:\nvision\config\hist_config.xml"

6.5.2. Call By Call data

Open file "**cbc_batch.bat**" from folder **x:\nvision\cbc** in notepad or WordPad to edit contents.
Update the first line "SET NVISION_HOME" to reference the home folder of the nVISION
Data Mart install. From command window, navigate to "x:\nvision\batch\cbc". Run "Start
hist_batch.bat x:\nvision\config\cbc_config.xml"

6.5.3. Contact data

Open file "**contact_batch.bat**" from folder **x:\nvision\contact** in notepad or WordPad to edit
contents. Update the first line "SET NVISION_HOME" to reference the home folder of the
nVISION Data Mart install. From command window, navigate to "x:\nvision\batch\contact".
Run "Start hist_batch.bat x:\nvision\config\contact_config.xml"

7. General Test Approach and Test Results

Compliance Test bed was setup with historical data populated. Each test was run as described in
the test plan developed by Symmetrics. The test cases verified the correct configuration of the
nVision DataMart 1.8 connection to Contact Center Manager Server 7.0. The test cases also
verified the correct acquisition of data by nVision DataMart 1.8.   No failures were observed.

8. Verification Steps

This section provides the tests that can be performed to verify the proper configuration of Avaya
Contact Center Manager Server 7.0 and Symmetrics nVISION Data Mart 1.8.

From command prompt navigate to x:\nvision\utilities. For Historical data: "run
configValidation.bat [x\nvision\config\hist_config.xml]". For Call by call data: "run
configValidation.bat [x:\nvision\config\cbc_config.xml]"

The log file config_validation.log located in x:\nvision\utilities folder should be reviewed for any errors.

9. Conclusion

These Application Notes describe the configuration steps required for Symmetrics nVISION Data Mart 1.8 to retrieve data from Avaya Contact Center Manager Server 7.0. All functional test cases were completed successfully

10.   Additional References

Avaya product documentation for Contact Center Manager Server can be found at
http://support.nortel.com/

The following documentation was provided by Symmetrics:
[1] nvision_user_guide.docx